Product Datasheet

Green Live/Dead Stain (orb511139)

Catalog Number	orb511139
Category	Tools
Description	Green Live/Dead Stain is a vital dye that exhibits intact cell membrane exclusion properties analogous to the popular red fluorescing vital dyes, Propidium Iodide (PI), 7-amino- actinomycin D (7-AAD) and DRAQ7. Like the red fluorescing dyes, Green Live/Dead Stain is excluded from intact, healthy cells due to its polar nature. In the presence of cells exhibiting compromised membrane integrity, Green Live/Dead Stain penetrates the cell and nuclear membrane barriers and intercalates tightly to DNA in a manner analogous to PI and 7-AAD. When bound to DNA, it acquires a greatly enhanced fluorescence potential (>2000X) in the green emission range. These important vital dye properties enable Green Live/Dead Stain to be used in flow cytometry-based protocols to assess the percentage of late apoptotic, necrotic, and membrane-compromised cells within a sample cell population. When bound to nucleic acids, the maximum absorption of Green Live/Dead Stain is 495 nm and the maximum emission is 512 nm. Cells can be viewed through a fluorescence microscope or analyzed with a flow cytometer. Green Live/Dead Stain is provided as a 500 µM concentrated stock solution dissolved in DMSO. For flow cytometry applications, a staining concentration of 50 nM is recommended. Therefore, using sample sizes of 0.5 mL, a single 50 µL vial provides enough reagent for 1000 tests. For fluorescence microscopy applications, a usage concentration of 0.5 µM is suggested. In this way, a vial is sufficient for 100 tests (0.45 mL sample sizes). Green Live/ Dead Stain can be used with red FLICA 660 caspase inhibitor reagents to identify four populations of cells: living; early apoptotic; late apoptotic; and necrotic.
Target	Dead cells, necrosis
Concentration	500 µM

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Application notes	1. Allow product to equilibrate to room temperature (25°C) prior to use., 2. Add stop solution to plate well. Equal volumes of TMB microwell substrate and stop solution should be used. We recommend using 100 µL of TMB substrate and 100 µL of Stop Solution for TMB Substrates per well. The stopped TMB reaction product is stable for 1 hour., 3. Read absorbance at 450 nm within 60 minutes. For best results, sample absorbance should be monitored and stopped before values exceed 2.0 OD units.
Sample Types	Cell culture
Storage	-20°C
Note	For research use only

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